Amendments to the Claims:

Please amend the claims to read as follows, and cancel the claims indicated as cancelled without prejudice:

1. (Currently Amended) An in-vivo system comprising:

   an autonomous in vivo device, said device comprising:

   an illumination source and a detector to collect reflected light; and

   a processor to, based on signals from the detector, determine a location of the in-vivo device.

2. (Original) The system according to claim 1, wherein said detector is configured to receive light from a body lumen wall.

3. (Original) The system according to claim 1, wherein said processor is configured to indicate a movement of said in-vivo device from one area to another.

4. (Original) The system according to claim 1, wherein said processor is configured to indicate a movement from a relatively small diameter lumen into a larger diameter lumen.

5. (Currently Amended) The system according to claim [[1]] 1, wherein the in vivo device comprises an imager.

6. (Original) The system according to claim 5, wherein said detector is located at a location of said in-vivo device such that illumination generated from said illumination source and reflected from a body lumen wall to said detector is not received at the imager.

7. (Original) The system according to claim 1, wherein said detector is selected from the group consisting of: a CMOS, a CCD and a photodiode.

8. (Original) The system according to claim 1, comprising a primary light source and a dedicated light source.

9. (Original) The system according to claim 8 wherein the primary light source illuminates a body lumen for imaging said body lumen and wherein the dedicated light source illuminates a body lumen for locating the in vivo device.

10. (Original) The system according to claim 8 wherein the primary light source is positioned behind an optical window in the in vivo device.

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Original) The system according to claim 1, comprising a controller, wherein said controller is configured to receive signals from said detector and to trigger an event to occur within said in-vivo device.

16. (Original) The system according to claim 1 comprising a transmitter.

17. (Original) The system according to claim 1, wherein said in-vivo device is a swallowable capsule.

18. (Currently Amended) A method for locating an in vivo device, the method ~~comprising;~~ comprising:

illuminating a body lumen wall;

receiving light reflected from the body lumen wall; and

determining a location of the in vivo device, based on comparing received light to a predetermined threshold.

19. (Cancelled)

20. (Original) The method according to claim 18, wherein said comparing comprises comparing the quality of said reflected light to a predetermined threshold.

21. (Original) The method according to claim 18, wherein said comparing comprises comparing the quantity of said reflected light to a predetermined threshold.

22. (Original) The method according to claim 18, comprising sending a signal if a change in said reflected light is determined, to a unit selected from the group consisting of: a reception unit, a processing unit and an operator unit.

23. (Original) The method according to claim 18, comprising initiating an event if there is a change in said reflected light according to a comparison to the pre-determined threshold.

24. (Cancelled)

25. (Original) The method according to claim 18 comprising:

transmitting light from a dedicated light source in an in-vivo sensing device, wherein said dedicated light source is located so as not to illuminate through an optical window of said device;

receiving reflected light by a detector; and

determining the location of the device, based on comparing received light to a predetermined threshold.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (New) The method according to claim 18:

wherein the illuminating is via light transmitted from behind an optical window, the window shielding an imager; and

wherein the receiving is by a detector, wherein the detector does not detect light through the optical window.